

District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144 CLEZ
July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOC District Office.

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

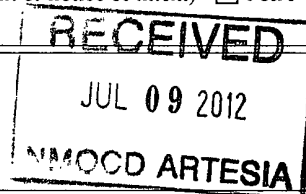
Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1. Operator: **COG OPERATING LLC** OGRID #: **229137**
Address: **550 WEST TEXAS, SUITE 100 MIDLAND, TX 79701**
Facility or well name: **HOGAN STATE COM #2H**
API Number: **30-015- 40442** OCD Permit Number: **213156**
U/L or Qtr/Qtr **UL I** Section **2** Township **17S** Range **29E** County: **EDDY**
Center of Proposed Design: Latitude **N/A** Longitude **N/A** NAD ☐ 1927 ☐ 1983
Surface Owner: ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2. ☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Operation: ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A
☐ Above Ground Steel Tanks or ☒ Haul-off Bins

3. **Signs:** Subsection C of 19.15.17.11 NMAC
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19.15.3.103 NMAC



4. **Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____

5. **Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name: **CRI** Disposal Facility Permit Number: **R1966**
Disposal Facility Name: **GM INC** Disposal Facility Permit Number: **711-019-001**
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No
Required for impacted areas which will not be used for future service and operations:
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): **Kacie Connally** Title: **PERMITTING TECH**
Signature: *Kacie Connally* Date: **4-17-2012**
e-mail address: **kconnally@concho.com** Telephone: **432-221-0336**

7. **OCD Approval:** ☒ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____

Approval Date: _____

Title: _____

OCD Permit Number: _____

8. **Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ Closure Completion Date: _____

9. **Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____

Disposal Facility Permit Number: _____

Disposal Facility Name: _____

Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

10. **Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____

Title: _____

Signature: _____

Date: _____

e-mail address: _____

Telephone: _____

Closed Loop Operation & Maintenance Procedure

All drilling fluid circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) are circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid is continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll off containers are lined and de-watered with fluids re-circulated into system.

Additional tank is used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained 24 hrs./day by solids control personnel and or rig crews that stay on location.

Cuttings will be hauled to either:

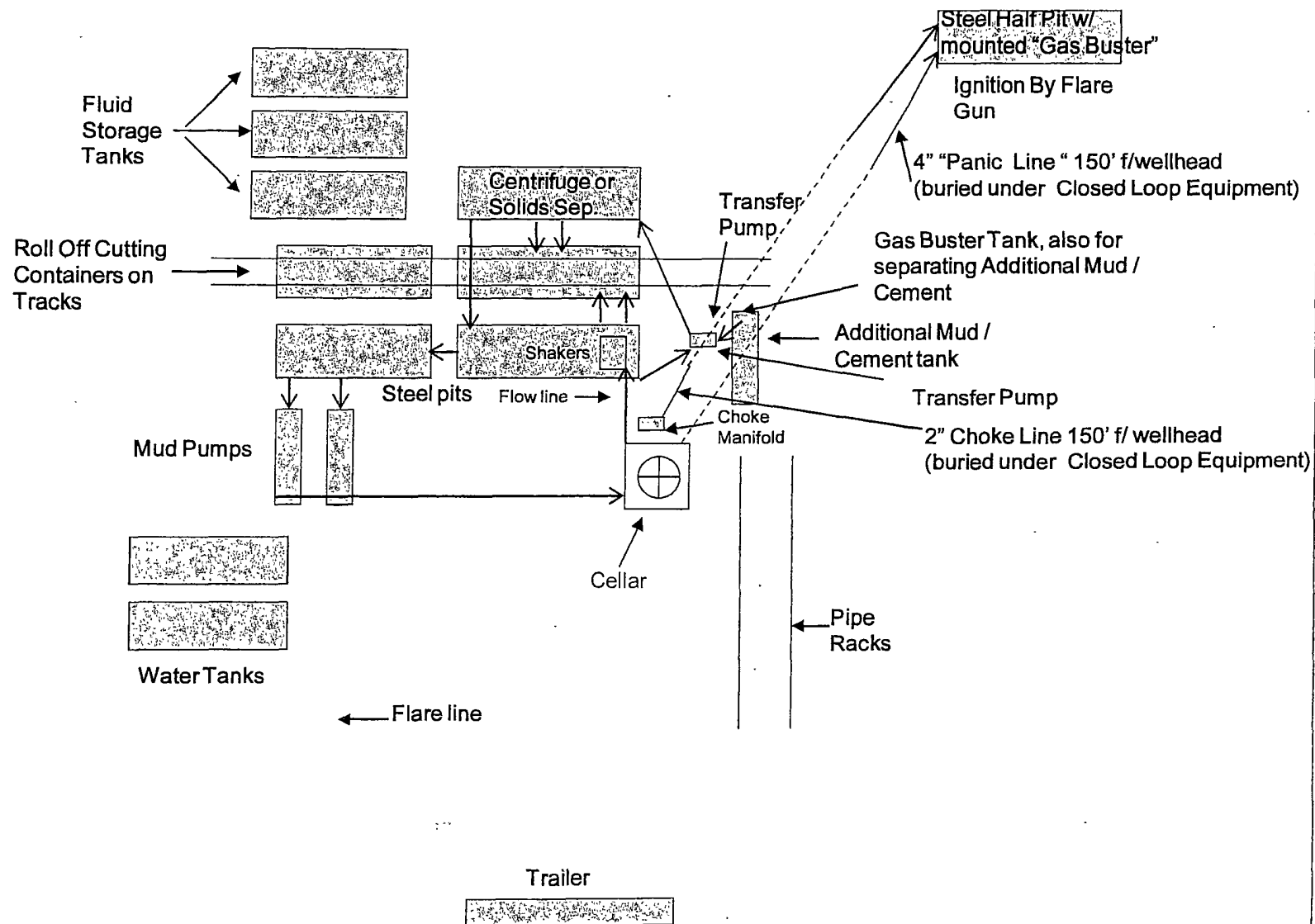
CRI (permit number R9166)

or

GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

COG Operating LLC
Closed Loop Equipment Diagram





COG Operating LLC

Eddy County, NM (NAN27 NME)

Hogan State Com #2H

OH

Plan #2 - 8-3/4" Hole

Surface: 1700' FSL, 330' FEL, Sec 2, T17S, R29E, Unit I

BHL: 1650' FSL, 330' FWL, Sec 2, T17S, R29E, Unit L

Standard Planning Report

02 July, 2012





Scientific Drilling International, Inc.
Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Site: Hogan State Com #2H
Well: Hogan State Com #2H
Wellbore: OH
Design: Plan #2 - 8-3/4" Hole

Local Co-ordinate Reference: Site Hogan State Com #2H
TVD Reference: GL @ 3665.00usft
MD Reference: GL @ 3665.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project Eddy County, NM (NAN27 NME)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site Hogan State Com #2H

Site Position: Northing: 677,021.70 usft Latitude: 32° 51' 39.118 N
From: Map Easting: 590,869.50 usft Longitude: 104° 2' 14.652 W
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16" Grid Convergence: 0.16°

Well: Hogan State Com #2H

Well Position: +N-S 0.00 usft Northing: 677,021.70 usft Latitude: 32° 51' 39.118 N
+E-W 0.00 usft Easting: 590,869.50 usft Longitude: 104° 2' 14.652 W
Position Uncertainty: 0.00 usft Wellhead Elevation: Ground Level: 3,665.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	07/02/12	7.72	60.67	48,841

Design Plan #2 - 8-3/4" Hole

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.00

Vertical Section	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0.00	0.00	0.00	269.47

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,321.86	0.00	0.00	4,321.86	0.00	0.00	0.00	0.00	0.00	0.00	
5,080.19	91.00	269.47	4,799.25	-4.52	-485.78	12.00	12.00	0.00	269.47	
9,229.23	91.00	269.47	4,726.84	-43.10	-4,634.00	0.00	0.00	0.00	0.00	PBHL-Hogan State #2



Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Hogan State Com #2H
Company:	COG Operating LLC	TVD Reference:	GL @ 3665 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3665 00usft
Site:	Hogan State Com #2H	North Reference:	Grid
Well:	Hogan State Com #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 - 8-3/4" Hole		

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
4,321.86	0 00	0 00	4,321.86	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 12.00°/100'									
4,400.00	9 38	269 47	4,399.65	-0 06	-6.38	6 38	12.00	12 00	0 00
4,500.00	21 38	269 47	4,495 90	-0 31	-32.85	32.85	12.00	12 00	0 00
4,600.00	33 38	269 47	4,584 53	-0 73	-78.75	78.75	12 00	12 00	0 00
4,700.00	45 38	269 47	4,661 69	-1.32	-142 07	142 07	12.00	12 00	0 00
4,800.00	57 38	269 47	4,724 00	-2 05	-220.05	220 06	12.00	12 00	0 00
4,900.00	69 38	269 47	4,768 73	-2.88	-309.28	309 29	12.00	12 00	0 00
5,000.00	81 38	269 47	4,793 93	-3.77	-405 86	405 88	12 00	12 00	0 00
5,080.19	91 00	269 47	4,799 25	-4 52	-485 77	485 80	12 00	12 00	0 00
Land hold 91.00°									
5,100.00	91 00	269 47	4,798 91	-4 70	-505 58	505 60	0 00	0 00	0 00
5,200.00	91 00	269 47	4,797 16	-5 63	-605 56	605 59	0 00	0 00	0 00
5,300.00	91 00	269 47	4,795.41	-6.56	-705 54	705.57	0 00	0 00	0 00
5,400.00	91 00	269 47	4,793.67	-7 49	-805 52	805 56	0 00	0 00	0 00
5,500.00	91 00	269 47	4,791.92	-8.42	-905.50	905 54	0 00	0 00	0 00
5,600.00	91 00	269 47	4,790.18	-9 35	-1,005.48	1,005 53	0 00	0 00	0 00
5,700.00	91 00	269 47	4,788 43	-10 28	-1,105.46	1,105 51	0 00	0 00	0 00
5,800.00	91 00	269 47	4,786.69	-11.21	-1,205 44	1,205.50	0 00	0 00	0 00
5,900.00	91 00	269 47	4,784 94	-12 14	-1,305 42	1,305.48	0 00	0 00	0 00
6,000.00	91.00	269 47	4,783 20	-13.07	-1,405 41	1,405 47	0 00	0 00	0 00
6,100.00	91 00	269 47	4,781 45	-14 00	-1,505.39	1,505.45	0 00	0 00	0 00
6,200.00	91 00	269 47	4,779 71	-14 93	-1,605.37	1,605 44	0 00	0 00	0 00
6,300.00	91 00	269 47	4,777 96	-15 86	-1,705.35	1,705 42	0 00	0 00	0 00
6,400.00	91 00	269 47	4,776 22	-16 79	-1,805 33	1,805 40	0 00	0 00	0 00
6,500.00	91 00	269 47	4,774 47	-17 72	-1,905 31	1,905 39	0 00	0 00	0 00
6,600.00	91 00	269 47	4,772 73	-18.65	-2,005.29	2,005 37	0 00	0 00	0 00
6,700.00	91 00	269 47	4,770 98	-19.58	-2,105 27	2,105.36	0 00	0 00	0 00
6,800.00	91 00	269 47	4,769 24	-20 51	-2,205 25	2,205 34	0 00	0 00	0 00
6,900.00	91 00	269 47	4,767 49	-21.44	-2,305.23	2,305 33	0 00	0 00	0 00
7,000.00	91 00	269 47	4,765 75	-22 37	-2,405 21	2,405 31	0 00	0 00	0 00
7,100.00	91 00	269 47	4,764 00	-23 30	-2,505 19	2,505 30	0 00	0 00	0 00
7,200.00	91 00	269 47	4,762 25	-24 23	-2,605 17	2,605 28	0 00	0 00	0 00
7,300.00	91 00	269 47	4,760 51	-25 16	-2,705 15	2,705 27	0 00	0 00	0 00
7,400.00	91 00	269 47	4,758 76	-26 09	-2,805.13	2,805 25	0 00	0 00	0 00
7,500.00	91.00	269 47	4,757 02	-27 02	-2,905.11	2,905 24	0 00	0 00	0 00
7,600.00	91 00	269 47	4,755 27	-27 95	-3,005 09	3,005 22	0 00	0 00	0 00
7,700.00	91.00	269 47	4,753 53	-28.88	-3,105.07	3,105 21	0 00	0 00	0 00
7,800.00	91 00	269 47	4,751.78	-29 81	-3,205 05	3,205 19	0 00	0 00	0 00
7,900.00	91.00	269 47	4,750.04	-30 74	-3,305 03	3,305 18	0 00	0 00	0 00
8,000.00	91 00	269 47	4,748 29	-31 67	-3,405 01	3,405 16	0 00	0 00	0 00
8,100.00	91 00	269 47	4,746 55	-32 60	-3,504 99	3,505 15	0 00	0 00	0 00
8,200.00	91 00	269 47	4,744 80	-33 53	-3,604 97	3,605 13	0 00	0 00	0 00
8,300.00	91 00	269 47	4,743 06	-34 46	-3,704 96	3,705 12	0 00	0 00	0 00
8,400.00	91 00	269 47	4,741.31	-35 39	-3,804 94	3,805.10	0 00	0 00	0 00
8,500.00	91 00	269 47	4,739 57	-36 32	-3,904 92	3,905 09	0 00	0 00	0 00
8,600.00	91.00	269 47	4,737 82	-37 25	-4,004 90	4,005 07	0 00	0 00	0 00
8,700.00	91 00	269 47	4,736 08	-38 18	-4,104 88	4,105 05	0 00	0 00	0 00
8,800.00	91 00	269 47	4,734 33	-39 11	-4,204 86	4,205 04	0 00	0 00	0 00
8,900.00	91 00	269 47	4,732 59	-40 04	-4,304 84	4,305 02	0 00	0 00	0 00
9,000.00	91 00	269 47	4,730 84	-40 97	-4,404 82	4,405 01	0 00	0 00	0 00
9,100.00	91.00	269 47	4,729 10	-41 90	-4,504 80	4,504 99	0 00	0 00	0 00
9,200.00	91 00	269 47	4,727 35	-42 83	-4,604 78	4,604 98	0 00	0 00	0 00



Database:	EDM 5000 1 Single User Db.	Local Co-ordinate Reference:	Site Hogan State Com #2H.
Company:	COG Operating LLC	TVD Reference:	GL @ 3665 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3665 00usft
Site:	Hogan State Com #2H	North Reference:	Grid.
Well:	Hogan State Com #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2 - 8-3/4" Hole		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,229.23	91.00	269.47	4,726.84	-43.10	-4,634.00	4,634.20	0.00	0.00	0.00
PBHL-Hogan State #2H									

Design Targets

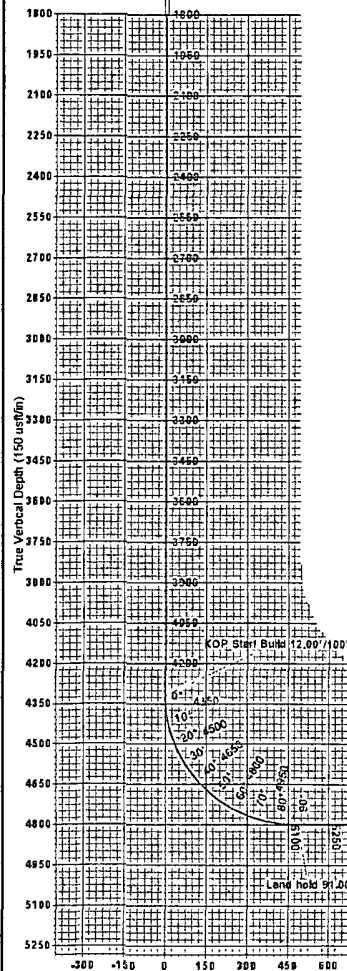
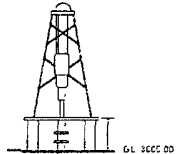
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL-Hogan State #2H	0.00	0.01	4,726.84	-43.10	-4,634.00	676,978.60	586,235.50	32° 51' 38.816 N	104° 3' 8.981 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	Comment	
		+N/-S (usft)	+E/-W (usft)	
4,321.86	4,321.86	0.00	0.00	KOP Start Build 12.00°/100'
5,080.19	4,799.25	-4.52	-485.77	Land hold 91.00°



Hogan State Com #2H
Eddy County, NM (NAN27 NME)
Northing (Y) 677021.70
Easting (X) 590869.50
Plan #2 - 8-3/4" Hole



WELL DETAILS: Hogan State Com #2H									
Well ID	Well Name	Northings	Ground Level	3000 DD	Latitude	Longitude	Site		
00	000	677021.70	590869.50	42° 21' 30" N	104° 21' 42.72" W				

SECTION DETAILS									
Sta	MD	Inc	ATI	TVD	W-C	E-W	Dip	T-Face	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4271.86	0.00	0.00	4271.86	0.00	0.00	0.00	0.00	0.00
3	4286.16	01.00	0.00	4286.16	0.00	0.00	0.00	0.00	0.00
4	4299.23	01.00	0.00	4299.23	0.00	0.00	0.00	0.00	0.00

DESIGN TARGET DETAILS									
Name	LVD	W-C	E-W	Northings	Easting	Latitude	Longitude	Shape	
PBHL-Hogan State #2H	4706.84	42.10	4634.00	676978.60	592735.58	42° 21' 30" N	104° 21' 42.72" W	Point	

PROJECT DETAILS: Eddy County, NM (NAN27 NME)									
Geodetic System	US State Plane 1983 (NAD83)	Datum	NAD 1983 (NAD83)	Zone	North	East	Zone	North	East
System	US State Plane 1983 (NAD83)	Datum	NAD 1983 (NAD83)	Zone	North	East	Zone	North	East

SITE DETAILS: Hogan State Com #2H									
Site Name	Northings	Easting	Latitude	Longitude	Positional Uncertainty	Coordinate	Local North	Scale Factor	
Hogan State Com #2H	677021.70	590869.50	42° 21' 30" N	104° 21' 42.72" W	0.10	0.10	0.10	1.000	

LEGEND									
—	Hogan State Com #2H (CH Plan #1 - 8-3/4" Hole)								
—	Hogan State Com #2H (CH Plan #1 - 8-3/4" Hole)								
—	Plan #2 - 8-3/4" Hole								

